

**ILLINOIS COMMERCE COMMISSION**

**EXHIBIT NO. 2.0**

**DIRECT TESTIMONY OF**

**MARK L. JOHNSON**

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**ILLINOIS-AMERICAN WATER COMPANY**

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OF  
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**EXHIBIT 2.0**

1   **Q.    Please state your name.**

2    A.    Mark L. Johnson

3   **Q.    Please state your business address.**

4    A.    100 North Water Works Drive, Belleville, Illinois 62223.

5   **Q.    By whom are you employed and in what capacity?**

6    A.    I am employed by Illinois-American Water Company (“Illinois-American” or “Company”) as  
7       Vice President of Engineering.

8   **Q.    Please summarize your higher education experience.**

9    A.    I obtained a B.S. Degree in Civil Engineering from Worcester Polytechnic Institute in 1976. I  
10       earned an M.S. Degree in Environmental Engineering from the University of Maine in 1977. In  
11       1996, I successfully completed the Utility Executive Management Program at the University of  
12       Michigan Business School.

13   **Q.    Please summarize your employment experience.**

14   A.    I joined Bridgeport Hydraulic Company (“BHC”) in 1978 as an Engineer. In 1979, I became  
15       Superintendent-System Operations for BHC. In 1983, I became Director-Engineering. In  
16       1987, I was made Vice President-Engineering. In 1990, I became President and Chief  
17       Operating Officer of Stamford Water Company, a subsidiary of BHC, and also Vice President-  
18       Environmental Management of BHC.

1 From April 1, 1993 until September 1, 1999, I served as Vice President of Production for  
2 Northern Illinois Water Corporation (“NIWC”). On September 1, 1999, I became Vice  
3 President of Engineering for Illinois-American.

4 **Q. Are you a registered professional engineer?**

5 A. Yes, in the states of Illinois and Connecticut.

6 **Q. Are you a member of any professional organizations?**

7 A. I am a member of the American Water Works Association and a diplomate of the American  
8 Academy of Environmental Engineers.

9 **Q. Please summarize your responsibilities as Vice President for Engineering of Illinois-**  
10 **American.**

11 A. I am responsible for the planning, design and construction of water supply, treatment, pumping,  
12 storage, distribution, and general plant facilities for the Company. This includes:

- 13 • Administering the capital investment program consisting of an average of 20 to 40 projects  
14 annually with individual budgets greater than \$100,000, and typical yearly budgets ranging  
15 from approximately \$5 million to \$40 million;
- 16 • Supervising a staff of 8 engineers and technicians;
- 17 • Utilizing knowledge of state and federal regulatory requirements to ensure compliance with  
18 environmental requirements;
- 19 • Coordinating the procurement of all project design and construction services, including  
20 contract administration, requests for proposals, and scope development; and

- 1           • Providing comprehensive system planning for 5, 10 and 15-year intervals for use in  
2           projecting facility needs and expansion requirements.

3   **Q.   Have you testified before this Commission in other proceedings?**

4   A.   Yes. I have testified in several cases involving NIWC, including rate cases, certificate cases,  
5       and eminent domain cases. I also have testified in Illinois-American's recent merger case with  
6       United Water Illinois.

7   **Q.   Have you testified before any other regulatory commissions?**

8   A.   Yes. I have testified before the Connecticut Public Utilities Commission.

9   **Q.   As Vice President for Engineering of the Company, are you generally familiar with the  
10       business, facilities and operations of the Company in each of its divisions?**

11  A.   Yes.

12  **Q.   What is the purpose of your testimony?**

13  A.   I will describe the Alton Treatment Facility project and other major capital projects completed  
14       in 1999 and planned for 2000 and 2001.

15                                   **ALTON FACILITY**

16  **Q.   Has the Company started construction a new water treatment facility in the Alton  
17       District?**

18  A.   Yes. Construction began on March 8, 1999, and the facility will be completed and placed in  
19       service on or prior to December 31, 2000. I would refer the Commission to Docket No. 98-

0665, where the proposed facility was fully discussed and its prudence approved as part of the basis for the financing approved in that docket.

**Q. Would you please refresh the Commission's recollection and describe the new Alton Treatment Facility.**

A. Yes. A new water treatment facility is being constructed to replace the Alton District's existing water treatment facility, which consisted of a conventional surface water filtration facility (Main Station) with a rated capacity of 13.3 MGD. This facility was constructed in the 1890s and improved during the 1930s. A Claricone facility (High Service facility) with a rated capacity of 5 MGD, constructed in 1982 is also being replaced. The two existing facilities are immediately adjacent to each other on the Great River Road (IL Rt. 100) and share a common intake structure and some chemical storage facilities. The new facility has a rated capacity of 16 MGD. A detailed analysis supporting the need for the construction of a new treatment facility was performed as part of the 1996 Comprehensive Planning Study ("CPS").

**Q. Why was it necessary to replace the existing water treatment facility in the Alton District?**

A. The Alton District's existing water treatment facility had to be replaced to meet water quality requirements and flood protection and reliability goals. The existing facility has aged equipment and is inherently susceptible to flooding due to its proximity to the Mississippi River and its low elevation. The grade elevation at the existing facility is 436.5 feet at the top of the sedimentation basin. Normal river pool elevation maintained by the United States Corps of Engineers is 419 feet. The 100-year flood at the Alton location is estimated at 434 feet. During the flood of 1993, the maximum water level reached approximately 440 feet, which is just below the ceiling

1 of the top operating level of the facility. Due to flood protection barriers which have been built  
2 in the Mississippi River basin over the past 100 years, flood levels at Alton now reach a much  
3 higher level than anticipated in the 1890s when the facility was sited. The 1993 flood resulted in  
4 extensive damage to the electrical switch gear, instrumentation and control room, chlorine feed  
5 room, raw and filtered water pumps, structural damage to the sedimentation basin sidewalk and  
6 the floor of the switch gear room. As a result, the facility was out of service for about four days.  
7 Although most of the required equipment was repaired in order to place the facility back in  
8 service, the useful life of the repaired equipment was reduced.

9 It was not feasible to protect the facility from flooding at its present location. The low elevation  
10 of the area to the east and west of the facility would have required an extremely long floodwall  
11 or a wall that would surround the Facility completely to isolate it from high water levels. In  
12 addition, the proximity of the sedimentation basins and the raw water intake to the Mississippi  
13 River prevent the construction of a floodwall to protect that section of the Facility. Construction  
14 of an extension to the sedimentation basin walls, therefore, would be required. It was unclear  
15 whether the original structural design of the sedimentation basin could withstand such an  
16 addition. The hydrogeological nature of the Mississippi River banks would require deep sheet  
17 piling at an exorbitant cost, and would reduce the effectiveness of the flood wall due to the  
18 anticipated high seepage rates, which could cause structural damage and flooding of the facility  
19 even after the addition of the floodwall.

20 Even without consideration of the existing facility's susceptibility to flooding, major and  
21 extensive improvements would have been required at the facility to improve reliability. The CPS  
22 identified numerous required improvements, including an upgrade of the Main Station filters,

1 replacement of the raw water pumps, modification of chemical feed systems, construction of a  
2 new filtered water pump station for the High Service facility and improvements in facility  
3 controls.

4 Based on the concerns about aged equipment, the feasibility, effectiveness, and construction  
5 cost of the flood walls, and the inherently poor location of the existing facilities, the CPS  
6 concluded that new supply and treatment facilities were necessary to assure the availability of a  
7 safe and reliable source of supply for the Alton District. To prevent a repeat of the  
8 consequences of the 1993 flood, the new facility is being constructed on a site located at a  
9 much higher ground elevation.

10 **Q. Did the Company consider alternatives for a new source of supply?**

11 A. Yes. As part of the CPS, a study was undertaken to evaluate the feasibility and relative cost of  
12 numerous source of supply and treatment alternatives. Those alternatives identified as  
13 potentially the most feasible and cost-effective were: (i) purchase of treated water from the City  
14 of St. Louis; (ii) development of ground wells in Missouri connected to treatment facilities  
15 located on the Company's property in Alton in the High Service Area along route 3 (the "Route  
16 3 Site"); (iii) construction of ground water wells and treatment facilities in the Edwardsville,  
17 Illinois area; and (iv) construction of a new surface water treatment facility at the Route 3 Site  
18 ("TP-1").

19 After the CPS was completed, a fifth alternative was identified. Specifically, it was determined  
20 that property then currently owned by Mississippi Lime Company and located directly across  
21 the street and up the bluff from the existing facility (the "Mississippi Lime" site or "TP-2")

1 would be available. Analysis of that property indicated that the Mississippi Lime site was the  
2 most feasible and cost-effective location for a new surface water facility as compared to other  
3 potential sites, including the Route 3 Site.

4 Based on a detailed analysis of the construction and operating costs associated with each of the  
5 five alternatives identified above, the Company concluded that construction of the new surface  
6 water treatment facility at the Mississippi Lime site was the most cost-effective alternative. This  
7 analysis is described in more detail later in my testimony.

8 **Q. Please describe the components of the new Alton Treatment Facility.**

9 A. The Alton Treatment Facility consists of a new raw water intake and pumping station,  
10 clarification units, filtration units, filtered water storage clearwell, finished water pumping station,  
11 chemical feed and storage facilities, standby power unit and control/administrative areas.  
12 Treatment facilities layout and hydraulics were developed to allow the addition of residuals  
13 handling facilities, pre-settling units, and an ozone feed system, if needed in the future. The  
14 Alton Treatment Facility is arranged for a future capacity expansion of 8.0 mgd to provide a  
15 total facility capacity of 24.0 mgd, if needed in the future. The raw water intake is located on  
16 the Mississippi River across the Great River Road from the site on which the new facility was to  
17 be constructed. The raw water pump station consists of two wet wells, isolation gates on each  
18 wet well intake, isolation gate between the wet wells, traveling screen for each well, raw water  
19 pumps and discharge valves and piping. The pump station operating floor is 3 feet above the  
20 highest flood on record (Summer of 1993). Two 30-inch mains transfer water to the treatment  
21 facility.



1 High rate clarification process units called Superpulsators™ are being installed. Pilot testing  
2 was conducted by the Company in 1994 to evaluate treatment processes needed to meet the  
3 current and future water quality regulations. Test results of the Superpulsators™ were  
4 submitted and approved by the IEPA at 3 gpm/sq. feet loading rate. Each filter is equipped  
5 with a rate of flow (“ROF”) controller, filter to waste, air wash system, loss of head, water  
6 level, continuous turbidity and particle count monitoring. ROF controllers are used to maintain  
7 predetermined water level setting in the filters. High water level sensors are required to prevent  
8 flooding/overflowing of the filters. Adequate environmental controls (dehumidification,  
9 ventilation, etc.) are provided in the filter gallery and operating floor to maintain the service life  
10 of the equipment. A minimum of 2.5 MG of filtered water storage clearwell is included. A  
11 filtered water pump station is located next to the clearwell. Six distributive pumps are provided;  
12 three for the high service distribution system and three for the main service system. Two  
13 discharge headers are interconnected to the existing 12, 16 and 20-in mains. Adequate  
14 metering to each connection is provided.

15 Chemical storage and feed facilities are installed for the following chemicals: (i) primary  
16 coagulant; (ii) coagulant aid polymer (iii) filter aid polymer, (iv) solids blanket polymer (v)  
17 potassium permanganate; (vi) powdered activated carbon; (vii) corrosion inhibitor (viii) chlorine;  
18 (ix) ammonia; (x) caustic soda, (xi) hydrofluosilicic acid and (xii) sodium thiosulfate. The feed  
19 systems are designed in accordance with American Water System standards. Dust collection is  
20 provided for dry chemicals. A chlorine gas scrubbing system is provided for the chlorine feed  
21 system.

1 A diesel standby generator and fuel storage tank is provided to allow full operation at 16 mgd  
2 during power failures. A computer-based control system has been installed to allow the  
3 Company to monitor and control all components of the treatment and distribution facilities.  
4 Additional facilities include men and women locker rooms, office areas, conference/break room  
5 and a process laboratory.

6 **Q. Please describe the status of the direct discharge of treatment facility residual solids to**  
7 **the Mississippi River.**

8 A. The existing Alton Water Treatment Facility has in place an Adjusted Standard (R82-3, March  
9 8, 1984) for the discharge of water treatment facility residual solids. This Adjusted Standard  
10 exempts the facility's residual solids discharge from the effluent standards of Total Suspended  
11 Solids ("TSS") and Total Iron. The current National Pollution Elimination Discharge Permit  
12 ("NPDES Permit") requires daily monitoring of flow and monthly monitoring of pH, TSS, Total  
13 Iron and Total Residual Chlorine ("TRC").

14 The Illinois Environmental Protection Agency ("IEPA") determined that the existing Adjusted  
15 Standard and NPDES Permit do not apply to the new facility. Accordingly, the Company has  
16 applied for an Adjusted Standard for the new facility. The Company engaged the services of  
17 ENSR, an environmental impact consultant, to prepare a Site Specific Impact Study (SSIS) of  
18 the proposed direct discharge for the new facility. The Company first met with IEPA on  
19 September 12, 1996 to review a draft outline of the SSIS. Over the next three (3) years, the  
20 Company responded to several requests from IEPA and provided additional supportive  
21 environmental data for the SSIS. On March 19, 1999 the Company filed an application before

1 the Illinois Pollution Control Board ("IPCB") for an Adjusted Standard. During this process,  
2 the Company believed IEPA was supportive of the Adjusted Standard for direct discharge. In  
3 July 1999, however, the Company learned that IEPA was not going to support the Adjusted  
4 Standard and this decision was outlined in IEPA's Response dated September 10, 1999.

5 The SSIS revealed that the next most feasible alternative to direct discharge was the installation  
6 of holding lagoons and mechanical dewatering equipment (belt presses). The dewatered solids  
7 would be transported from the treatment facility site to a nearby landfill. The total capital cost  
8 for this alternative is estimated at \$7.38 million with annual operating costs of \$419,300 for a  
9 total annual cost of \$1.136 million. This alternative would require a range of 3-17 truck trips  
10 per day for the hauling dewatered solids from the facility along the Great River Road to the  
11 landfill site.

12 Local residents, government officials and environmental groups are opposed to the hauling of  
13 dewatered solids along this roadway, which has just established as a National Scenic By-way.  
14 In fact, these same groups appeared or presented testimony at the first Adjusted Standard  
15 Hearing held in Alton on November 30, 1999. One of these groups, the Great Rivers Land  
16 Trust ("GRLT") approached the Company with a unique proposal. That proposal is to allow  
17 the direct discharge at the replacement facility and at the same time obtain a 6,720 tons per year  
18 reduction (2:1) in suspended solids to the Mississippi River at another location. The net positive  
19 impact would be a reduction of 3, 360 tons per year. The GRLT proposed to obtain this  
20 reduction in the Piasa Creek Watershed, which is a tributary watershed to the Mississippi River,  
21 located just upstream of the Alton intake. This suspended solids trading proposal is very similar

1 to one of the sections in the Total Maximum Daily Load (TMDL) regulations currently being  
2 proposed by the United States Environmental Protection Agency (USEPA).

3 The suspended solids trading proposal appeared to be an excellent solution and was presented  
4 to IEPA. Over the last few months the Company, IEPA and GRLT have met and worked out  
5 a plan for the implementation of this suspended solids trading proposal. In its basic form, the  
6 Adjusted Standard for the replacement facility would be granted and the Company will  
7 contribute \$4,150,000 over a ten year period to fund the Piasa Creek Watershed Project. The  
8 Company will enter into a contract with the GRLT to perform the work. The NPDES permit  
9 will be written such that the successful performance of the watershed project will be a permit  
10 condition. It is fully expected that a retained 2:1 reduction in suspended solids will be obtained  
11 in this ten year period.

12 The suspended solids trading proposal is a winner for all constituents---the Company and it's  
13 customers, IEPA and the IPCB, GRLT and the watershed stakeholders, and more. Watershed  
14 partnerships like this are becoming a new force in America. A recent newsletter from the  
15 American Water Works Association Research Foundation entitled How Utilities Are Building  
16 Watershed Partnerships, gives four recent examples of national watershed partnerships. One of  
17 the examples cited is that related to the Company's sister company, NIWC, which has been  
18 involved with a successful watershed group called the Vermilion Watershed Task Force  
19 (VWTF). The VWTF has been in existence for approximately six (6) years and has had a great  
20 track record in improving source water quality especially keeping nitrate levels to acceptable  
21 levels in the Vermilion River. Although, the suspended solids trading proposal is new to Illinois,  
22 watershed improvement programs already have a track record of success here in Illinois.

1 The suspended solids trading proposal was formally presented a second Adjusted Standard  
2 hearing in Alton on January 6, 2000. The Company now awaits a decision from the IPCB on  
3 the Adjusted Standard and the suspended solids trading proposal. The Company also pointed  
4 out to IEPA that the construction of the replacement facility is well underway and start-up is  
5 scheduled for November 2000. Start-up occurs in November 2000 to allow one month of  
6 service at the replacement facility to work out any problems before the existing plant is taken  
7 out-of-service. The final design of any residual solids treatment options has not begun due to  
8 the duration of the Adjusted Standard proceedings. In the event that the IPCB does not  
9 approve the Adjusted Standard, the Company requested a variance for the existing NPDES  
10 permit to allow continuation of the direct discharge from the replacement facility until the  
11 Company has adequate time (18 months) to design and construct the required facilities.

12 **Q. Please describe in more detail the alternatives involving purchased water and ground**  
13 **water sources of supply which the Company considered.**

14 A. The following is a description of those alternatives:

- 15 • **Purchase Water from City of St. Louis.** The City of St. Louis, Missouri water system  
16 has sufficient available treatment capacity to meet Alton's current and future maximum day  
17 needs, and therefore was considered as a potential supplier of treated water for Alton.  
18 Discussions with City of St. Louis (the "City") personnel indicated that the initial price for  
19 purchased water would be \$360 per million gallons. The pipeline to interconnect the St.  
20 Louis and Alton systems would be about 13.5 miles in length. Two potential routes for  
21 installing the pipeline from the City to Alton were evaluated in detail. Dual pipelines would  
22 be installed along river crossings and in areas that are not protected by levees. A single 36-

1 inch pipeline would be installed along protected portions. The estimated capital cost of this  
2 alternative was \$49.62 million.

3 In evaluating the future increases in the cost of water purchased from the City, the Company  
4 projected a 3% annual increase in the price of purchased water in calculating the present  
5 value of the total cost of this alternative.

6 • **Ground Water System in Missouri.** A preliminary ground water evaluation indicated  
7 that a ground water system located in Missouri across the river from the Route 3 Site might  
8 be cost-effective. Ground water pipelines would be routed directly across the River to the  
9 Route 3 Site to avoid any construction along the Great River Road, since permitting of any  
10 construction on the Great River Road would not be feasible. Discussions with the United  
11 States Army Corp of Engineers (“USACOE”), however, indicated that most of the river  
12 front property is located in environmentally protected areas and, therefore, it is unlikely that  
13 a well field or pipeline would be allowed to be installed in those areas. The inability to use  
14 river front property across the river from the Route 3 Site would have necessitated the  
15 routing of raw water pipelines from the south, toward the Clark Bridge, across the  
16 Mississippi River, then north to the Route 3 Site, even if the Company were to develop an  
17 inland well field. The long stretch of the pipeline(s) would increase the capital and operating  
18 costs of this alternative. The capital cost of this alternative was estimated to be \$63.1  
19 million.

20 • **Ground Water System in Illinois.** The results of a literature review and computer  
21 modeling of the designated study area in Illinois indicated that a ground water system with

1 16 mgd of capacity could potentially be developed on Chouteau Island. Based on  
2 discussions with the hydrogeologic consultant (Bennett and Williams), and taking into  
3 account the limited space and recharge area on the Chouteau Island, it was assumed that  
4 the 16 mgd capacity would be developed using two 8-mgd each Ranney wells. In order to  
5 provide a reliable capacity of 10 mgd (average day demand for Alton with one Ranney well  
6 out of service), two additional 2 mgd wells would also be needed. The capital costs of this  
7 ground water system would also include two 24-inch raw water transmission mains from the  
8 Chouteau Island to a ground water treatment facility, to be constructed in the Edwardsville  
9 area.

10 An engineering evaluation indicated that the use of one transmission main to deliver finished  
11 water from the facility to Alton would require the addition of 4.5 MG of additional storage  
12 in Alton to provide for appropriate system operation and adequate reliability. Hydraulic  
13 analysis of Alton's distribution system computer model indicated that additional storage  
14 could be provided using two standpipes in the Main Service area, and a third standpipe in  
15 the High Service Area (Principia area). The standpipes would be used to maintain the  
16 hydraulic gradient in the Main Service Area. A separate transmission main (10,000 feet of  
17 24 inch) and a booster pump station would be required to deliver water from the standpipes  
18 to the High Service Area. Routing of all of the flow through the standpipes would increase  
19 flow-through rates, turnover, and minimize the potential for any taste and odor problems.  
20 The estimated capital cost of this alternative was \$62 million.

1   **Q.     Please describe the Company’s analysis of the alternatives.**

2   A.     The Company performed a detailed present worth analysis of the total “life-cycle” costs of each  
3           of the five alternatives. For each treatment plant alternative, two options were provided; (a)  
4           direct discharge of residual solids and (b) residual solids treatment. For all alternatives, both  
5           capital costs and projected annual operating costs were taken into account. The projected total  
6           cost of the new water treatment facility located on the Mississippi Lime site (TP-2) was \$39.54  
7           million (direct discharge). The present worth of the total costs associated with the new water  
8           treatment facility at TP-2 was \$61.5 million, or 5.43 million less than the present value of the  
9           costs (\$66.93 million) associated with the next most cost-effective, feasible alternative, i.e.,  
10          construction of a new surface water treatment facility (direct discharge) at the Route 3 Site (TP-  
11          1). The present worth of the total cost of the purchased water, Illinois ground water and  
12          Missouri ground water alternatives were \$83.37 million, \$85.58 million and \$86.86 million,  
13          respectively.

14                           **OTHER MAJOR 1999 CAPITAL PROJECTS**

15   **Q.     In addition to the Alton water treatment facility, were other major projects completed**  
16       **in 1999?**

17   A.     The major 1999 Investment Projects are described as follows:

- 18       •   **Principia Tank & Booster Pump Station (Alton-\$900,926)**-This project included the  
19           installation of a new 600,000 gallon ground storage tank and a new 800 gpm booster pump  
20           station in the Principia High Service Zone. The storage tank provides improved



equalization, fire and emergency storage and the booster station provides improved distribution pressure/flow.

- **Principia Water Main (Alton-\$248,644)**-This project included the installation of 5,000 feet of 12" water main in Elsay Hills Drive. This project provides a piping loop, which improves system reliability.
- **Chemical Storage and Feed Improvements (Cairo-\$246,086)**-This project included the installation of new chemical and feed systems for chlorine, fluoride and corrosion inhibitor. This installation has improved the safety and reliability of storing and feeding these chemicals.
- **Bond/Madison Transmission Main and Booster Pump Station (Interurban-\$3,765,055)**-This project included the installation of 50,000 feet of 16" water main, booster pump station, rechlorination station and hydro-pneumatic tank for providing water service to a large rural water district in eastern Bond and Madison counties.
- **Pontoon Water Main (Interurban-\$1,375,006)**-This project included the installation of 10,000 feet of 24" water main in Pontoon Road from Maryville Road to IL Route 111. This water main provides improved transmission capability for the northeastern portion of the Granite City system and improves the ability to provide water to the Bond-Madison area.
- **Central Well Development (Peoria-\$2,305,598)**-This project included the installation of a production well, well building, access road, chemical feed facilities and site fencing for a new 2 mgd well. The well provides needed supply to meet increasing demands in the Peoria system.

- 1       • **Source of Supply Improvements (Pekin-\$748,792)**-This project included the installation  
2       of three Granular Activated Carbon (GAC) units to remove tetrachlorethylene (PCE) in  
3       Wells #1 & 3. The units are efficiently removing these contaminants and has allowed the  
4       continual use of these wells.
- 5       • **Route 40 Main (Peoria-\$575,639)**-This project included the installation of 2,200 feet of  
6       24” water main and 5,400 feet of 20” water main in Route 40 from Alta Road to the Route  
7       40 Pump Storage Facility. This installation improves transmission capabilities, tank refill and  
8       preserves the ability to meet High Service peak hour demands.
- 9       • **Route 116 Main (Peoria-\$345,980)**-This project included the relocation of 4,200 feet of  
10      12” water main related to a Illinois Department of Transportation (“IDOT”) road widening  
11      project.
- 12      • **Bellevue Water Main and Booster Pump Station (Peoria-\$2,250,692)**-This project  
13      included the installation of 16,000 feet of 16” water main and a new booster pump station.  
14      The new water main provides improved supply and reliability to this area of Peoria and the  
15      booster pump station replaced an outdated, undersized facility.

## 17                   **MAJOR 2000 CAPITAL PROJECTS**

18    **Q.     Please describe major projects that will be completed in 2000.**

19    **A.     The major 2000 Investment Projects are described as follows:**

- 1 • **Cairo Elevated Tank (Cairo-\$1,620,000)**-This project will provide improved fire  
2 protection to the Cairo system. A clearwell alternative is being considered that will provide  
3 both needed treatment and distribution system storage with potential cost savings.
- 4 • **Brooklyn Pump Station (Interurban-\$1,201,300)**-This project will include the installation  
5 of a 7 mgd pump station which will allow improve transfer of water from the East St. Louis  
6 system to the Granite City system and help augment supply for the Granite City and the  
7 Bond-Madison systems.
- 8 • **Prospect Main (Peoria-\$540,000)**-This project involves the installation of 4,500 feet of  
9 20" water main in Prospect Avenue to eliminate a bottleneck in the San Koty discharge  
10 transmission piping.
- 11 • **Chlorine Gas Scrubbers-Dodge & Sankoty/Granite City Stations**  
12 **(Peoria/Interurban-\$1,060,000)**-This project includes the installation of a dry chlorine gas  
13 scrubber system at these three facilities and is part of a long-term plan to improve safety  
14 related to the use of chlorine gas at Company facilities.
- 15 • **Well No. 66 (Champaign-\$687,000)**-This project includes the installation of a 3 mgd well,  
16 pump & motor, well building, access road and 2,600 feet of 20" supply main. The well is  
17 needed to provide sufficient supply to meet growing demands in the Champaign system.
- 18 • **High Cross & Airport Road (Champaign-\$1,100,000)**-This project includes the  
19 installation of 558 feet of 20" water main, 9,980 feet of 16" water main and 1,775 feet of  
20 12" water main along High Cross, Airport and Perkins Roads in northeast Urbana. This  
21 project is part of a master plan to improve west-to-east transfer of water in the Champaign-  
22 Urbana systems and will also eliminate existing dead-end mains in the area.

- 1       • **Olympian Drive (Mattis to Farber-\$455,000)**-This project includes the installation of  
2       2,700 feet of 24” water main along Olympian Drive and 325 feet of 8” water main on  
3       Farber Drive. This project is part of a master plan to improve west-to-east transfer of water  
4       in the Champaign-Urbana systems and will also eliminate existing dead-end mains in the  
5       area.
- 6       • **New Maintenance Facility (Champaign-\$325,000)**-This project includes the installation  
7       of a 6,000 square foot pre-fabricated building at the Champaign West Plant to house the  
8       Production Maintenance group. The new building will provide much needed space for  
9       performing maintenance work, electronic repair and storage of equipment and vehicles.
- 10      • **Newtown Township (Streator-\$609,500 w/\$470,700 contribution)**-This project includes  
11      the installation 14,987 feet of 8” and 6” water mains and 92 service connections, services  
12      and meters to an area south of the Streator system. The homes in this area have private  
13      wells with inadequate capacity of quality. The residents have received a CDAP grant in the  
14      amount of \$400,000 that will be contributed to the project.
- 15      • **Meter Reading Equipment (All-\$517,200)**-This project includes the purchase and  
16      installation of new meter reading equipment and software to replace outdated and  
17      maintenance-plagued equipment in all division. In addition, all merged companies will be  
18      using the same equipment/software.
- 19      • **Comprehensive Planning Studies (Corp-\$350,000)**-Comprehensive Planning Studies  
20      (CPS) will be completed for the Streator, Sterling and Lincoln Districts. Also,  
21      Supply/Treatment studies for the Interurban and Peoria districts will be completed.
- 22      • **Customer Service Software (Corp-\$2,856,000)** This is a multi-year project which began  
23      in 1998 and involves the conversion of the Company’s EDIS customer service software to

1 the new ORCOM software. The ORCOM software has more features and matches the  
2 customer service software used by other American Water Works Company subsidiaries.

### 3 **MAJOR 2001 CAPITAL PROJECTS**

4 **Q. Please describe major projects that will be completed in 2001.**

5 A. The major 2001 Investment Projects are described as follows:

- 6 • **Route 67 Relocation (Alton-\$391,000)**-This project includes the relocation of sections of  
7 6" and 12" water main along IL Route 67 in Alton. The relocations are required due to a  
8 road widening project by IDOT.
- 9 • **Airport Road Relocation (Peoria-\$430,000)**-This project includes the relocation of  
10 sections of 12" water main along Airport Road in Peoria. The relocations are required due  
11 to a road widening/improvement project by the Peoria County Highway Department.
- 12 • **Chlorine Gas Scrubber-Main Station (Peoria-\$384,500)**-This project includes the  
13 installation of a dry chlorine gas scrubber system at this facility and is part of a long-term  
14 plan to improve safety related to the use of chlorine gas at Company facilities.
- 15 • **Groundwater Pump Improvements (Peoria-\$299,700)**-This project will include  
16 piping/pump modification to allow use of wells at the Peoria Main Station at a higher rate for  
17 blending with surface water to assist with meeting the new D/DBP rules.
- 18 • **East Plant SCADA (Champaign-\$1,196,300)**-This project includes the design and  
19 installation of new controls and equipment to automate the Champaign East Plant. This  
20 project is needed to replace outdated equipment and improve productivity/efficiency.

1       • **East Plant Chemical Improvements (Champaign-\$450,000)**-This project includes the  
2       design and installation of chemical storage and feed improvements at the Champaign East  
3       Plant to improve safety and reliability. This work will be coordinated with the SCADA  
4       work mentioned above.

5   **Q.   Does this conclude your testimony?**

6   A.   Yes.